



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/628,692	07/28/2000	W. Olin Sibert	7451.0025-00	3388
22852	7590	12/16/2004	EXAMINER	
FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 1300 I STREET, NW WASHINGTON, DC 20005			COLIN, CARL G	
			ART UNIT	PAPER NUMBER
			2136	

DATE MAILED: 12/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/628,692	<b>Applicant(s)</b> SIBERT, W. OLIN	
	<b>Examiner</b> Carl Colin	<b>Art Unit</b> 2136	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 July 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07/28/2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                      | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                             | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>7/14/04</u> | 6) <input type="checkbox"/> Other:  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. In response to communications filed on 7/14/2004, applicant cancels claim 27 and amends claim 7. The following claims 1-26 are presented for examination.

2. The amendments to the specification, filed on 7/14/2004 have been considered, and the objection to the specification has been withdrawn in view of the amended specification.

2.1 Applicant's arguments, pages 8-16, filed on 7/14/2004, with respect to the rejection of claims 1-15 have been fully considered, but they are not persuasive. With respect to the amended claim 7, the scope of the claim has been changed and Examiner requests Applicant to show where the support for the new limitation is provided in the disclosure. Applicant argues that Benson uses a server to perform one of the roles of the challenge/response. However, the disclosure provides an example but it is not limited to the example of license server, for instance Benson discloses another embodiment of generating challenge that does not involve a server and further discloses the random selection of at least one predetermined portion of a software; (see claims 1-3 and 17-19 and column 9, lines 25-35). In addition, Applicant's claimed invention is directed to a computer system including a trusted element and an insecure arrangement. The server and the computer may also be part of a computer system. In another embodiment, the license server is a program (see column 14), therefore the customer machine and the license server are part of the same system.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the challenge/response process is executed locally) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

With respect to claims 1 and 14, Applicant argues about the references not disclosing a random random selection of one of the predefined plural subsets of an electronic item. Applicant respectfully disagrees because after further consideration and further review of the reference, Benson either taking alone or with Shavit discloses a random selection of one of the predefined plural subsets of the software as mentioned above, for example (see claims 1-3 and 17-19 and column 9, lines 25-35). In addition, this feature and the computing step as disclosed in claims 1 and 14 can also be found in the (*Applicant IDS*) US Patent 5,745,678 to Herzberg (see claims in Herzberg). Herzberg further discloses that the random selection of data portions of the electronic item provides the benefit of reducing forgery (*column 6*).

It remains the examiner's position that claims 1-26 are still rejected for at least the reasons cited above.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an

international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3.1 **Claims 7, 10-11, 13, and 27** are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent 6,047,242 to **Benson**.

3.2 **As per claim 7, Benson** discloses a computer system including an insecure computing arrangement for using an application, a trusted element for verifying the application the trusted element comprising: a decryptor that decrypts a credential associated with the application, for example (see column 12, lines 63-65); a validator that validates at least one digital signature corresponding to the credential, for example (see column 11, lines 42-51); **Benson** discloses a challenge/response means that meets the recitation of a challenge generator that selects, based at least in part on the credential, at least one predetermined portion of the application, and issues a challenge requesting a response from the insecure arrangement, the response providing a computation of at least one value based on the selected predetermined portion of the application, for example (see columns 11-12); **Benson** discloses the challenge/response in another

Art Unit: 2136

embodiment, for example (see column 9, lines 25-45; column 17, line 25 through column 18, line 55; and column 19, lines 15-53); and a response checker that checks the response against the credential, for example (see column 12, lines 50-54).

**As per claims 10-11, Benson** discloses the limitation of wherein the challenge generator requests the application to compute a cryptographic hash of the selected predetermined portion (see column 13).

**As per claim 13, Benson** discloses the limitation of wherein the challenge generator selects a virtual path within the application (see column 9, lines 40-45).

**As per claim 27, Benson** discloses a method for tampering with a credential verification process, the method including: predicting portions of a credentialed electronic item specified in repetitive challenges (see column 8 and column 9, lines 25-35), and supplying corresponding cryptographic hash values based on the predicted portions (see columns 8 and 13).

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have

Art Unit: 2136

been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4.1 **Claims 1-6, 9, 12, 14-26** are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,047,242 to **Benson** in view of US Patent 6,009,543 to **Shavit**.

4.2 **As per claims 1 and 2, Benson** substantially teaches a method for verifying an electronic item, the method including: (a) presenting a secure credential, the credential comprising predefined plural subsets of the electronic item and corresponding cryptographic hashes, for example (see column 10, line 58 through column 11, line 33) and column 17, lines 5-20); and discloses generate a random challenge, for example (see column 9, lines 25-28); (c) computing a cryptographic hash of a portion of the electronic item corresponding to the selected predefined subset, for example (see column 11, lines 22-51); and (d) testing whether the computed cryptographic hash corresponds to a corresponding cryptographic hash within the presented credential, for example (see column 11 line 55 through column 12, line 31). **Benson** further discloses repeating the step of verifying credential (see claim 51). **Benson** does not explicitly teach randomly selecting one of the predefined plural subsets. However, **Shavit** in an analogous art teaches randomly selecting one of the predefined plural subsets, for example (see column 11 lines 49-57). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of **Benson** to select randomly one of the predefined plural as taught by **Shavit** in order to maintain control over those parties able to use

Art Unit: 2136

the software, for example (see column 12, lines 56-58). This modification would have been obvious because one skilled in the art would have been motivated by the suggestions provided by **Shavit** so as to maintain control over those parties able to use the software.

**As per claim 3, Shavit** discloses the limitation of further including: randomly selecting a second portion of the electronic item that does not correspond to one of the predefined plural subsets (see column 16, lines 48-54); and requiring computation of a cryptographic hash of said second portion of the electronic item (see column 16, lines 48-54 and see column 12, lines 56-58).

**As per claim 4, Benson** discloses the limitation of wherein step (c) includes challenging the electronic item to compute said cryptographic hash (see column 13).

**As per claim 5, Benson** discloses the limitation of wherein step (c) includes accessing the electronic item via shared memory (see column 16, lines 47 et seq.).

**As per claim 6, Shavit** discloses the limitation of wherein steps (b) and (c) are performed during execution of the electronic item (see column 12, line 53 through column 13, line 4).

**As per claims 14, 20, and 21 Benson** substantially teaches a method for certifying an electronic item comprising: (a) selecting plural portions of the electronic item (see column 8); (b) computing at least one cryptographic value corresponding to each of the selected plural portions



Art Unit: 2136

(see column 8) and (c) specifying a credential defining each of the randomly selected plural portions and the corresponding computed cryptographic values (see columns 8 and 13). **Benson** further discloses repeating the step of verifying credential (see claim 51). **Benson** further discloses generate a random challenge (see column 9, lines 25-28). **Benson** does not explicitly teach randomly selecting plural portions of the electronic item. However, **Shavit** in an analogous art teaches randomly selecting plural portions of the electronic item (see column 11 lines 49-57). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of **Benson** to select randomly one of the predefined plural as taught by **Shavit** in order to maintain control over those parties able to use the software (see column 12, lines 56-58). This modification would have been obvious because one skilled in the art would have been motivated by the suggestions provided by **Shavit** so as to maintain control over those parties able to use the software.

**Claim 8** recites the limitation of the rejected **claim 1**. Therefore, **claim 8** is rejected on the same rationale as the rejection of **claim 1**.

As per **claims 9, 12, 17, and 24**, **Benson** substantially teaches the claimed system of claim 7. **Benson** does not explicitly teach randomly issuing the challenge during execution of the application and selecting a virtual path within the application. However, **Shavit** in an analogous art teaches the limitation of: wherein the challenge generator issues the challenge during execution of the application by the insecure computing arrangement (see column 12, line 53 through column 13, line 4); and wherein the challenge generator selects a virtual path within

Art Unit: 2136

the application (see column 5, lines 55-67). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of **Benson** to select a virtual path and challenge during execution of the application as taught by **Shavit** in order to maintain control over those parties able to use the software (see column 12, lines 56-58). This modification would have been obvious because one skilled in the art would have been motivated by the suggestions provided by **Shavit** so as to maintain control over those parties able to use the software.

**As per claims 15 and 22, Benson** discloses the limitation of wherein computing step (b) comprises computing a cryptographic hash value corresponding to each of the selected plural portions (see column 13).

**As per claims 16 and 23, Benson** discloses the limitation of wherein the challenge generator selects a virtual path within the application (see column 9, lines 40-45).

**As per claims 18 and 25, Benson** discloses the limitation of further including the step of digitally signing the credential (see column 11, lines 42-51).

**As per claims 19 and 26, Benson** discloses the limitation of further including the step of encrypting the credential (see column 11, lines 23-33).

***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5.1 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carl Colin whose telephone number is 571-272-3862. The examiner can normally be reached on Monday through Thursday, 8:00-6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

*cc*  
Carl Colin  
Patent Examiner  
November 23, 2004

*E. L. Moise*  
EMMANUEL L. MOISE  
PRIMARY EXAMINER